

Preliminary Amendment

Applicant: Judith Maget et al.

Serial No.: 10/574,151

(Priority Application No. DE 103 45 195.1)

(International Application No. PCT/DE2004/002023)

Filed: March 29, 2006

(Priority Date: 29 September 2003)

(International Filing Date: 10 September 2004)

Docket No.: I432.132.101/P32281

Title: INJECTION-LOCKED OSCILLATOR CIRCUIT

IN THE CLAIMS

Please cancel claim1 and add claims 13-32 so that the pending claims read as follows:

13. (New) An injection-locked oscillator circuit comprising at least two oscillator stages, each oscillator stage comprising:
- an inductance;
 - a capacitance connected in parallel with the inductance;
 - at least one output node;
 - a coupling-switching element subcircuit comprising at least one coupling-switching element which is coupled in parallel with the inductance and the capacitance in such a way that in each case precisely one coupling-switching element is present serially; and
 - at least one input terminal formed by means of the control terminal of the coupling-switching element;
- wherein the oscillator stages of the injection-locked oscillator circuit are coupled by means of the coupling-switching element subcircuits.
14. (New) The injection-locked oscillator circuit as claimed of claim 13, wherein each oscillator stage has two output terminals at which signals that are differential with respect to one another are present.
15. (New) The injection-locked oscillator circuit of claim 13, wherein the coupling-switching element subcircuit has two additional coupling-switching elements which are connected up to one another and are connected in parallel with the coupling-switching elements connected up to one another.
16. (New) The injection-locked oscillator circuit of claim 13, wherein the coupling-switching elements are transistors.

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17. (New) The injection-locked oscillator circuit of claim 16, wherein the transistors are NMOS and/or PMOS transistors.

18. (New) The injection-locked oscillator circuit of claim 17, wherein a respective one of the transistors connected in parallel is a PMOS transistor and the other transistor connected in parallel is an NMOS transistor.

19. (New) The injection-locked oscillator circuit of claim 13, wherein the capacitances are formed by means of varactors.

20. (New) The injection-locked oscillator circuit of claim 13, wherein the oscillator stages have an active element.

21. (New) The injection-locked oscillator circuit of claim 13, wherein an even number of oscillator stages are coupled to form an injection-locked oscillator circuit.

22. (New) The injection-locked oscillator circuit of claim 21, wherein the number of input terminals of each oscillator stage is equal to the number of oscillator stages of the injection-locked oscillator circuit.

23. (New) The injection-locked oscillator circuit of claim 22, wherein the injection-locked oscillator circuit has four oscillator stages, each oscillator stage having four input terminals and two output terminals and two of the input terminals being coupled to the output terminals of a preceding oscillator stage of the injection-locked oscillator circuit in the signal flow direction, and the other two input terminals being coupled to the output terminals of the downstream injection-locked oscillator circuit in the signal flow direction.

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24. (New) The injection-locked oscillator circuit of claim 13, wherein the injection-locked oscillator circuit has an odd number of oscillator stages.

25. (New) A semiconductor comprising:

a first inductance coupled in parallel with a first capacitance;

a first switching circuit coupled in parallel with the first inductance and capacitance, the first switching circuit having a control terminal configured as a first input;

a second inductance coupled in parallel with a second capacitance;

a second switching circuit coupled in parallel with the second inductance and capacitance, the second switching circuit having a control terminal configured as a second input;
and

means for coupling the first and second switching circuits to form an injection-locked oscillator circuit.

26. (New) The circuit of claim 25, wherein the first inductance, first capacitance and first switching circuit form a first oscillator stage and the second inductance, second capacitance and second switching circuit form a second oscillator stage, wherein each oscillator stage has two output terminals with differential signals.

27. (New) The circuit of claim 26, wherein the coupling-switching elements are transistors.

28. (New) The circuit of claim 26, wherein the transistors are NMOS and/or PMOS transistors.

29. (New) The circuit of claim 26, wherein a respective one of the transistors connected in parallel is a PMOS transistor and the other transistor connected in parallel is an NMOS

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transistor.

30. (New) The circuit of claim 26, wherein the capacitances are formed by means of varactors.

31. (New) The circuit of claim 26, wherein the oscillator stages have an active element.

32. (New) The circuit claim of 26, wherein an even number of oscillator stages are coupled to form an injection-locked oscillator circuit.